

Applicant respectfully submits that claim 18 is patentable over the references as there is no disclosure or suggestion in the references of a parallel plate capacitor that extends into and out of recesses in the semiconductor layer. Vaartstra teaches a capacitor structure, but it is not a parallel plate capacitor extending into and out of recess in a semiconductor layer. Ouellet is applied to teach a capacitor structure for a memory device or analog circuit stage. Ouellet is not applied to teach or suggest a parallel plate capacitor that extends into and out of recesses in the semiconductor layer. Yu is applied to teach a capacitor extending into and out of recesses. Yu does not teach a capacitor extending into and out of recess in a semiconductor layer. Rather Yu teaches forming a dielectric sidewall on a substrate and forming a capacitor structure over this sidewall. Yu does not teach recesses and certainly does not teach recesses in a semiconductor layer.

The combination of the references would not suggest to one of ordinary skill in the art to form deep recesses in the semiconductor layer such that the capacitor extends into and out of recesses in the semiconductor layer. At most, Yu would suggest building its sidewall structure on the structure of Vaartstra. This would not accomplish the claimed invention of a parallel plate capacitor that extends into and out of recesses in the semiconductor layer. Since both Vaartstra and Yu teach forming the capacitor over the substrate, it would not be obvious to one of ordinary skill in the art to form a parallel plate capacitor that extends into and out of recesses in the semiconductor layer. Accordingly, Applicant respectfully submits that claim 18 and the claims dependent thereon are patentable over the references.

The Examiner rejected claims 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Vaartstra (U.S. Patent 6,010,969) in view of Ouellet et al. (U.S. Patent 6,268,620), Yu et al. and further in view of Maniar (U.S. Patent 5,185,689).

Applicant respectfully submits that claims 21 and 22 are patentable over the references for the same reasons discussed above relative to claim 18, from which these claims depend.

In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 18-22. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,

/Jacqueline J Garner/

Jacqueline J. Garner
Reg. No. 36,144

Texas Instruments Incorporated
P. O. Box 655474, M.S. 3999
Dallas, Texas 75265
Phone: (214) 532-9348
Fax: (972) 917-4418